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# SOLAR PRODUCTS



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# HeliosFuse

Amphenol Technical Products International (ATPI) offers products and solutions for all segments of the solar electric system. ATPI understands the need for efficient (low loss) power transfer, highly reliable, and cost effective solutions that are required to be competitive in this industry. We can provide panel manufactures, installer, and OEM's with connectivity products for both

ATPI's molded in-line fuse, HeliosFuse, provides a quick solution for installing in-line solar fuses. The molded construction provides weather tight housing preventing moisture from getting to the fuse construction. The in-line fuse provides the needed electrical protection to prevent damage to the solar array should a ground fault occur. HeliosFuse is currently offered in our custom wire

Amphenol Technical Products International can help you power the planet with the sun. The HeliosFuse is just one of the solar solutions Amphenol Technical Products



## HeliosFuse

### Features

- 1A to 45A current rating
- 1500V (1000V compatible)
- IP68 protection degree
- Meets UL94-V0 flammability rating
- UL4248-1 & UL4248-19 recognized
- UL9703 listed



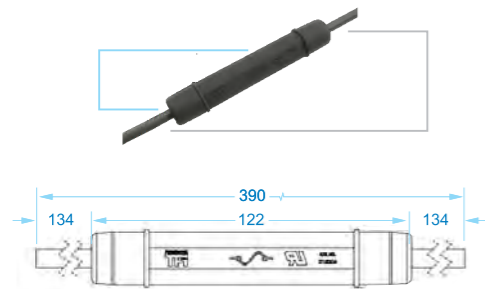


# 1500V HeliosFuse

## Specifications

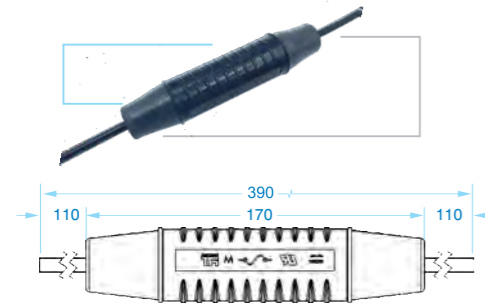
Description	1500V HeliosFuse
Rated Voltage Fuse	1500V
Rated Current Fuse	2.5A, 3.5A, 4A, 6A, 8A, 10A, 12A, 15A, 20A, 25A, 30A, 32A, 35A, 40A, 45A
Connector Options	UL Listed Connectors: H4, H4 Plus, MC4, EVO2, PV4-S1
Cable Size Options	12AWG or 10AWG or 8AWG 2kV PV Wire
Ingress Protection Degree	IP68 (1 Meter, 1 Hour)
Ambient Temperature Range	-40°C to 50°C
Material Safety	RoHS2 Compliant
Flammability Classifications	UL94-V0
Outdoor Suitability	UV Resistance, F1 Rated
Approvals	UL4248-1; UL4248-18 Recognized (File#: E352863) UL9703 Listed (File#: E498904)

**1500V 2.5A-4A FUSE**



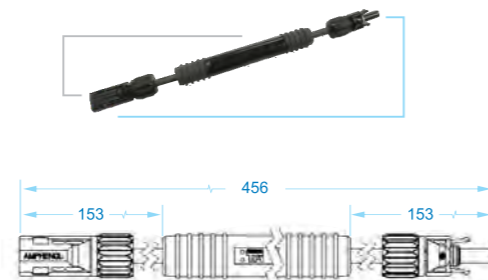
1500V FUSE/4A/12AWG/BLUNT CUT  
END TO END CABLE LENGTH 390MM  
(PART NUMBER: **2421000**)

**1500V 20A FUSE**



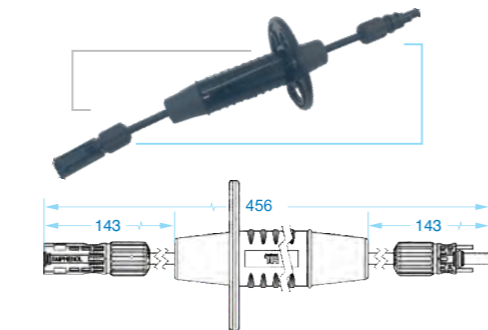
1500V FUSE/20A/10AWG/BLUNT CUT  
END TO END CABLE LENGTH 390MM  
(PART NUMBER: **2480000**)

**1500V 5A-15A FUSE**



1500V FUSE/15A/10AWG/H4 M-F  
END TO END CABLE LENGTH 390MM  
(456MM REF OVERALL W/CONNECTORS)  
(PART NUMBER: **2470020**)

**1500V 25A-45A FUSE**



1500V FUSE/30A/10AWG/H4 PLUS M-F  
END TO END CABLE LENGTH 390MM  
FUSE SPACER INCLUDED  
(456MM REF OVERALL W/CONNECTORS)  
(PART NUMBER: **24A0050**)

## Ordering Information

PRODUCT TYPE	RATED CURRENT	PV WIRE SIZE	END TERMINATION / CONNECTORS	END TO ENDCABLE LENGTH		CUSTOM LENGTH
24 1500V HeliosFuse	0 2.5 A	0 10AWG	00 BLUNT CUT BOTH ENDS	0	STANDARD (390 MM)	
	1 3.5 A		01 BOTH END PRESTRIPPED (8MM, SLUGS ON)			
	2 4 A		02 AMPHENOL H4 MALE TO H4 FEMALE (M-F)			
	3 6 A	1 12AWG	03 MULTI CONTACT MC4 MALE TO FEMALE (M-F)	1	CUSTOM	-X (mm)
	4 8 A		04 MULTI CONTACT EVO2 MALE TO FEMALE			
	5 10 A		05 AMPHENOL H4 PLUS MALE TO FEMALE (M-F)			
	6 12 A	2 8AWG	06 TYCO ELECTRONIC PV4-S1 MALE TO FEMALE (M-F) (12AWG/10AWG)	07	OTHER CONNECTORS	
	7 15 A					
	8 20 A					
	9 25 A					
	A 30 A					
	B 32 A					
	C 35 A					
	D 40 A					
	E 45 A					



## OVERMOLDED SOLAR JUNCTIONS

Amphenol Technical Products International (ATPI) offers products and solutions for all segments of the solar electric system. ATPI understands the need for efficient (low loss) power transfer, highly reliable, and cost effective

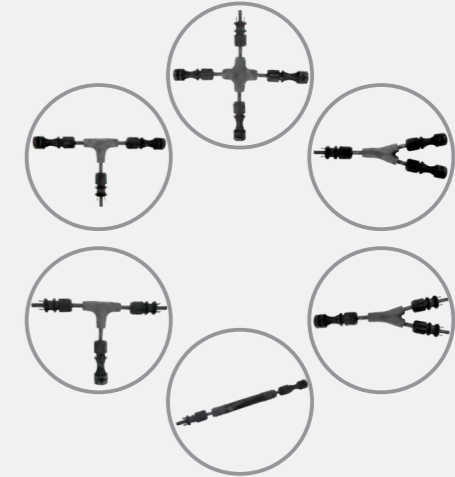
ATPI's overmolded solar junctions provides the ideal low cost, high quality solution for commercial photovoltaic installations. The molded construction provides weather tight housing preventing moisture from getting to the cable joints and provides the needed electrical protection with a rugged design. They can be pre-fabricated with various lengths, number of branches, distance

Amphenol Technical Products International maintains the highest standards for excellence. The 1500V overmolded solar junctions is just one of the cost effective solar solutions Amphenol Technical Products International has to



### Features

- 1500V DC Current Rating
- 4AWG, 6AWG, 8AWG, 10AWG, 12AWG, 14AWG cable options for 1500V
- IP68 ingress protection
- Long term UV resistance
- Ready for field assembly
- UL9703 listed & UL6703 approved
- Customer wiring harness services

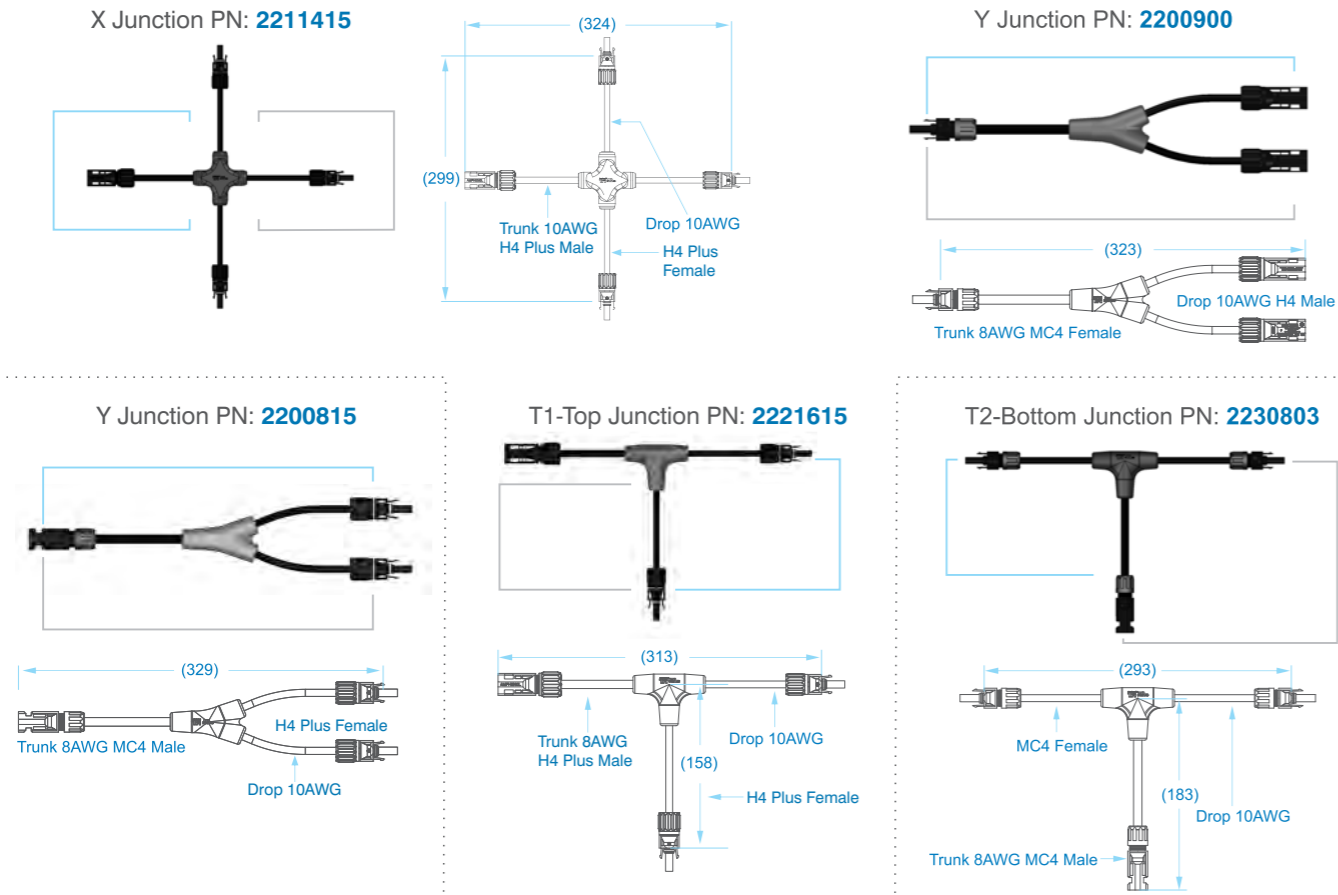


### Specification

DC Current Rating	1500V (600V & 1000V Compatible)
Junction Current Rating	65A/8AWG, 45.1A/10AWG, 32.8A/12AWG
Connector Options	H4/MC4/EVO2/H4 PLUS/PV4-S1
Cable Size Options	4AWG, 6AWG, 8AWG, 10AWG, 12AWG
Ingress Protection Degree	IP68 (1m Water/24hours)
Ambient Temperature Range	-40°C to 50°C
Material Safety	RoHS2 Compliant
Flammability Classifications	UL94-V0
Outdoor Suitability	UV Resistance, F1 Rated
Approvals	UL6703; UL4248-1; UL4248-19 Recognized UL9703 Listed



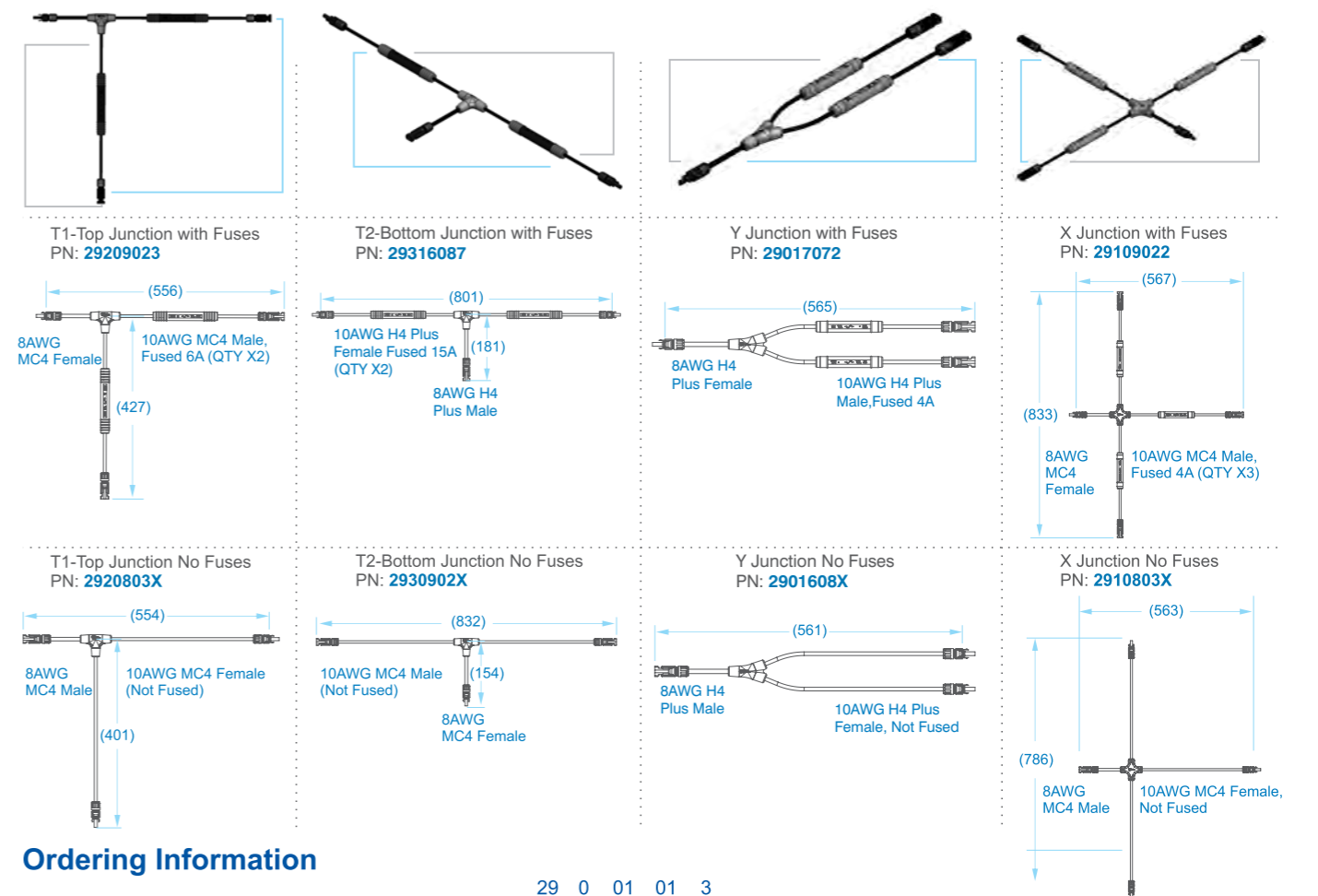
### 1500V Solar Junction



### Ordering Information

STANDARD PRODUCT	TYPE	TRUNK SIDE		DROP SIDE		
		00	01	00	01	
22	0	Y	00	10AWG H4 MALE	00	10AWG H4 MALE
			01	10AWG H4 FEMALE	01	10AWG H4 FEMALE
			02	10AWG MC4 MALE	02	10AWG MC4 MALE
			03	10AWG MC4 FEMALE	03	10AWG MC4 FEMALE
			04	10AWG EVO2 MALE	04	10AWG EVO2 MALE
	1	X	05	10AWG EVO2 FEMALE	05	10AWG EVO2 FEMALE
			06	8AWG H4 MALE	06	8AWG H4 MALE
			07	8AWG H4 FEMALE	07	8AWG H4 FEMALE
			08	8AWG MC4 MALE	08	8AWG MC4 MALE
			09	8AWG MC4 FEMALE	09	8AWG MC4 FEMALE
	2	T1-TOP	10	8AWG EVO2 MALE	10	8AWG EVO2 MALE
			11	8AWG EVO2 FEMALE	11	8AWG EVO2 FEMALE
			12	10AWG BLUNT CUT	12	10AWG BLUNT CUT
			13	8AWG BLUNT CUT	13	8AWG BLUNT CUT
			14	10AWG H4 PLUS MALE	14	10AWG H4 PLUS MALE
	3	T2-BOT	15	10AWG H4 PLUS FEMALE	15	10AWG H4 PLUS FEMALE
			16	8AWG H4 PLUS MALE	16	8AWG H4 PLUS MALE
			17	8AWG H4 PLUS FEMALE	17	8AWG H4 PLUS FEMALE
			18	10AWG PV4-S1 MALE	18	10AWG PV4-S1 MALE
			19	10AWG PV4-S1 FEMALE	19	10AWG PV4-S1 FEMALE
20			OTHER CONNECTORS	20	OTHER CONNECTORS	

### 1500V Solar Junction



### Ordering Information

STANDARD PRODUCT	TYPE	TRUNK SIDE		DROP SIDE		DROP WITH FUSES		
		00	01	00	01	0	1	
29	0	Y	00	10AWG H4 MALE	00	10AWG H4 MALE	0	FUSED (2.5A)
			01	10AWG H4 FEMALE	01	10AWG H4 FEMALE	1	FUSED (3.5A)
			02	10AWG MC4 MALE	02	10AWG MC4 MALE	2	FUSED (4A)
			03	10AWG MC4 FEMALE	03	10AWG MC4 FEMALE	3	FUSED (6A)
			04	10AWG EVO2 MALE	04	10AWG EVO2 MALE	4	FUSED (8A)
	1	X	05	10AWG EVO2 FEMALE	05	10AWG EVO2 FEMALE	5	FUSED (10A)
			06	8AWG H4 MALE	06	8AWG H4 MALE	6	FUSED (12A)
			07	8AWG H4 FEMALE	07	8AWG H4 FEMALE	7	FUSED (15A)
			08	8AWG MC4 MALE	08	8AWG MC4 MALE	8	FUSED (20A)
			09	8AWG MC4 FEMALE	09	8AWG MC4 FEMALE	9	FUSED (25A)
	2	T1-TOP	10	8AWG EVO2 MALE	10	8AWG EVO2 MALE	10	10AWG PV4-S1 FEMALE
			11	8AWG EVO2 FEMALE	11	8AWG EVO2 FEMALE	A	FUSED (30A)
			12	10AWG BLUNT CUT	12	10AWG BLUNT CUT	X	NO FUSE
			13	8AWG BLUNT CUT	13	8AWG BLUNT CUT		
			14	10AWG H4 PLUS MALE	14	10AWG H4 PLUS MALE		
	3	T2-BOT	15	10AWG H4 PLUS FEMALE	15	10AWG H4 PLUS FEMALE		
			16	8AWG H4 PLUS MALE	16	8AWG H4 PLUS MALE		
			17	8AWG H4 PLUS FEMALE	17	8AWG H4 PLUS FEMALE		
			18	10AWG PV4-S1 MALE	18	10AWG PV4-S1 MALE		
			19	10AWG PV4-S1 FEMALE	19	10AWG PV4-S1 FEMALE		
20			OTHER CONNECTORS	20	OTHER CONNECTORS			

## BALANCE OF SYSTEM (BOS) SOLUTION FOR PV WIRING HARNESSSES

Solar projects require custom wire harness solutions. Amphenol TPI has developed and certified a configurable product line to fit your project requirements and specifications.

### Certifications

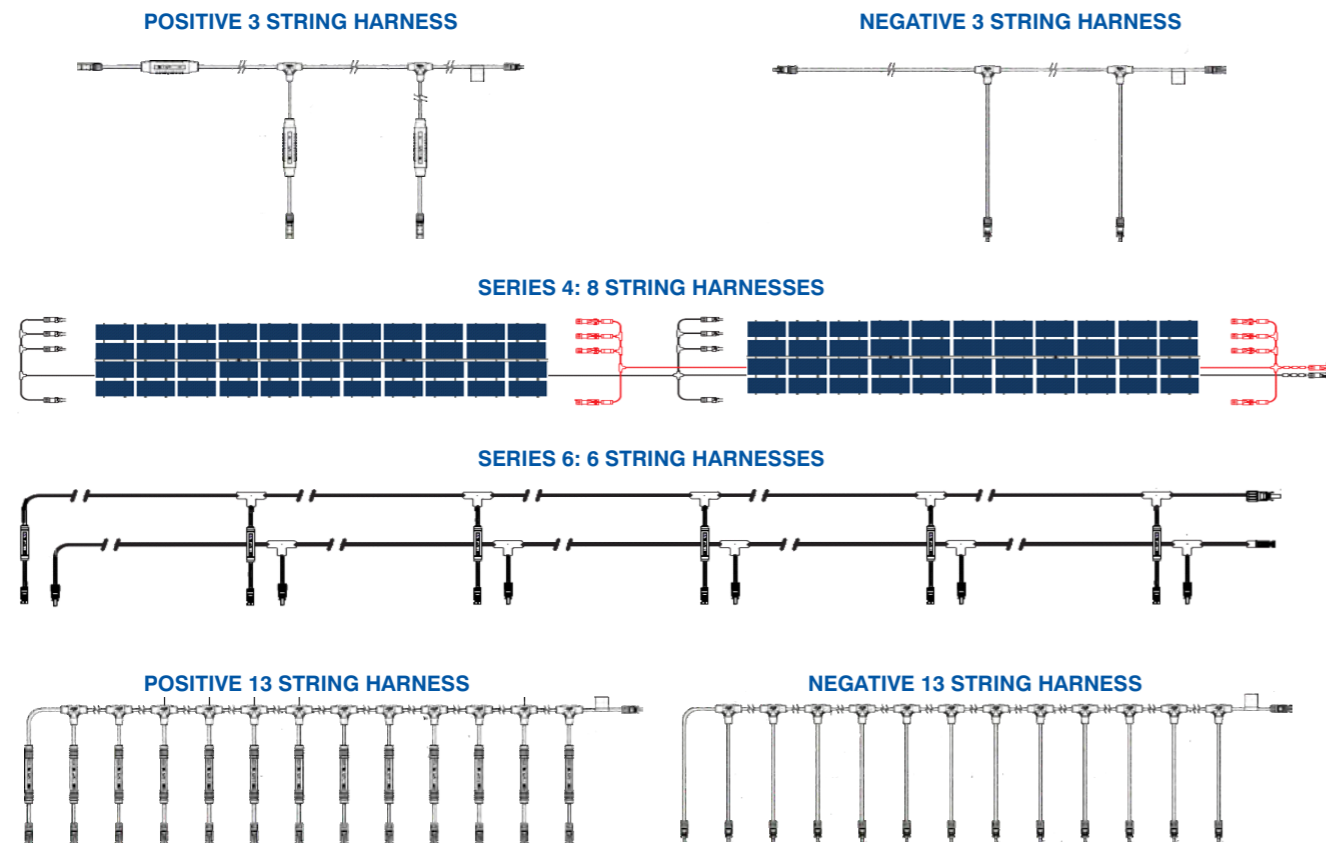
- UL9703 Listed Product
- UL4703 PV Wire
- UL4248 Overmolded Fuse
- UL6703 Connectors

### Quality Inspection

- 100% Electrically Tested Point to Point
- Ensuring Each Harness is Defect Free
- Visual Inspection, Continuity Test, Resistance Check, Water Leakage test

### APPLICATION EXAMPLE

Cable Harness Assemblies for Solar Panels



### Custom Harnesses

For custom solar wire harnesses for your project requirements, please contact ATPI's solar products team by referring to the contact Information section below.

#### Contact Information:

For further information on your individual application requirements or inquiries, please contact ATPI's solar products team:

#### North America

Winnipeg, Manitoba, Canada  
 Telephone: +1 204 697-2222  
 Address: 2110 Notre Dame Avenue

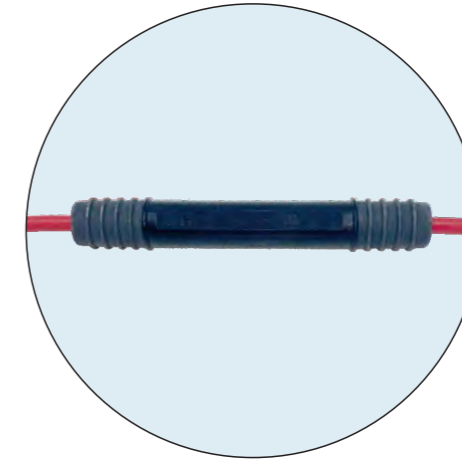
Email: [solar@tpil.com](mailto:solar@tpil.com)  
 Website: [www.tpil.com](http://www.tpil.com)

## PRODUCT GALLERY

1500V OVERMOLDED T-JUNCTION



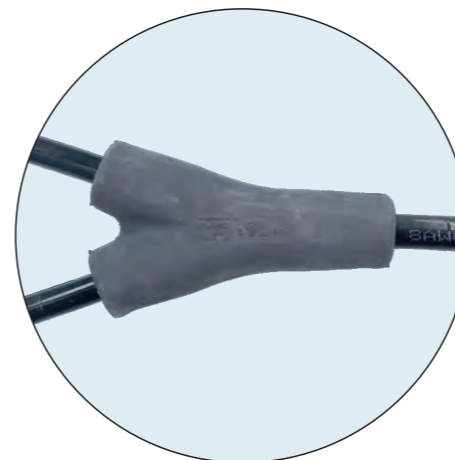
1500V OVERMOLDED 5A - 20A FUSE



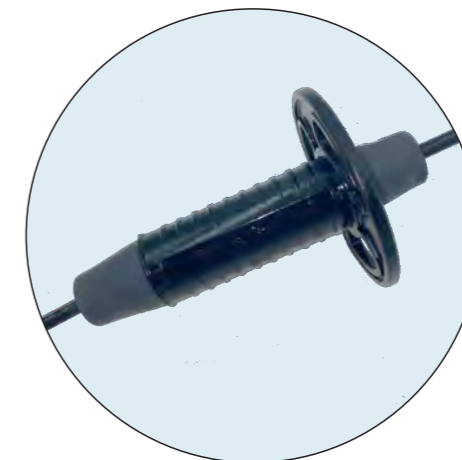
1500V OVERMOLDED BIG T-JUNCTION



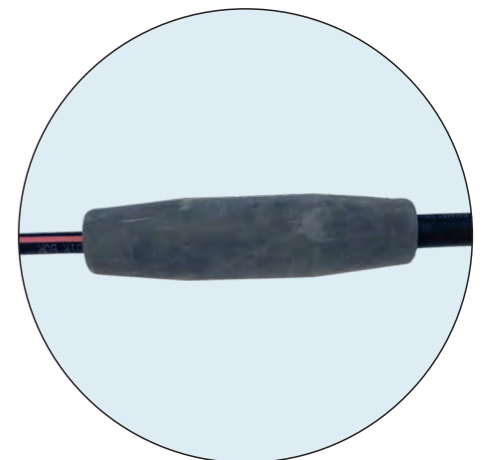
1500V OVERMOLDED Y-JUNCTION



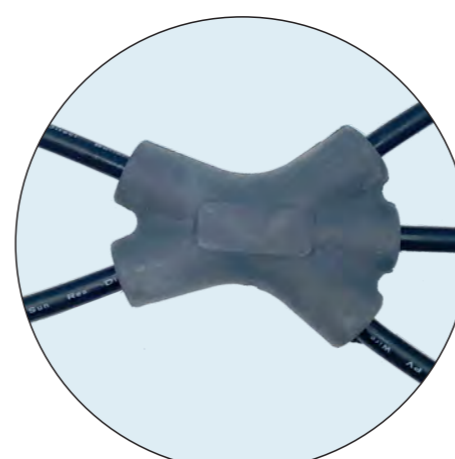
1500V OVERMOLDED 30A - 45A FUSE



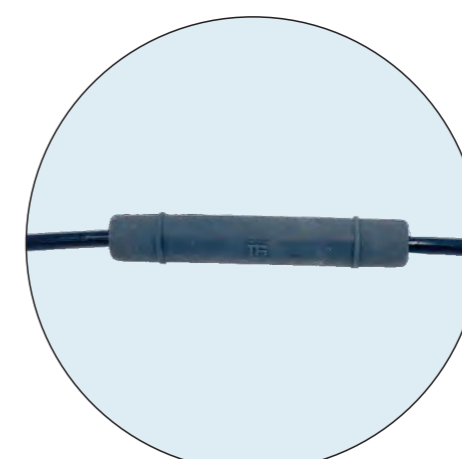
1500V IN-LINE OVERMOLD



1500V OVERMOLDED 3:2 STARR JUNCTION



1500V OVERMOLDED 1A - 4A FUSE



1500V OVERMOLDED X-JUNCTION

